

**Notice of Allowability**

Application No.

10/552,296

Examiner

Nikita Wells

Applicant(s)

SELLMAIR, JOSEF

Art Unit

2881

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to "Preliminary Amendment" received 03 October 2005.2.  The allowed claim(s) is/are 1-21.3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).a)  All    b)  Some\*    c)  None    of the:1.  Certified copies of the priority documents have been received.2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.**Attachment(s)**

1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	5. <input type="checkbox"/> Notice of Informal Patent Application
2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____.
3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 10/03/05	7. <input type="checkbox"/> Examiner's Amendment/Comment
4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance
	9. <input type="checkbox"/> Other _____.

Nikita Wells  
Primary Examiner  
Art Unit: 2881

**DETAILED ACTION**

***Allowable Subject Matter***

1. Claims 1-21 are allowed.
2. The following is an examiner's statement of reasons for allowance:

With respect to the independent claims 1 and 7, prior art fails to disclose or make obvious, in combination with other recited features of the claim limitations, an apparatus and method for controlling the beam current of a charged particle beam, comprising an emitter and a switching device adapted to switch between first, second and third beam current levels, wherein the beam current at said first current level is suitable for writing a pixel of an image on the surface of a sample, the beam current at said second current level is suitable for not writing a pixel on the surface of said sample, and the beam current at said third current level is lower than the beam current at the second current level.

With respect to the independent claim 14, prior art fails to disclose or make obvious, in combination with other recited features of the claim limitations, a method for controlling the beam current of a charged particle beam comprising the steps producing the charged particle beam by a field emission cathode, switching the extraction voltage of said field emission cathode between first and second voltage levels, wherein said first voltage level is suitable for writing a pixel of an image on the surface of a sample and said second voltage level is suitable for not writing a pixel on the surface of said sample, and switching the extraction voltage to a third voltage level, wherein said third voltage level is lower than said second voltage level.

The novel aspect of this invention, which is not disclosed in prior art but presented in all the independent claims, is the use of a beam current (or extraction voltage to create the beam current) at said second current level is suitable for not writing a pixel on the surface of said sample, and the beam current at said third current level is lower than the beam current at the second current level.

The dependent claims 2-6, 8-13, and 15-21, are allowable by virtue of their dependence upon the independent claims 1, 7, and 14, respectively.

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bogaty et al. (5,440,210) disclose a beam current limiter for indirectly sensing accelerator beam currents for limiting maximum beam current magnitude in particle accelerators used in scientific research and medical treatment.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (571) 272-2484. The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The central fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nikita Wells, Primary Examiner  
Art Unit 2881  
October 14, 2007